

ENTRANS

Policy Research Group

**GAPS IN CANADA'S MARINE OIL SPILL
RESPONSE SYSTEM BEYOND SHIP-SOURCE OIL
REPORT**

July 28 2018

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EXECUTIVE SUMMARY

Transport Canada (TC) and the Canadian Coast Guard (CCG) are now performing policy analysis to inform a proposal for Cabinet for the creation of a seamless, integrated marine emergency oil spill response system that goes beyond ship-source pollution and includes marine pollution from all offshore exploration and development and land-based sources. The departments jointly contracted with ENTRANS Policy Research Group (ENTRANS) to conduct research and analysis concerning the gaps in Canada's current regime and to make recommendations on next steps and future work to address the gaps identified.

There are important similarities as well as differences in the legal and regulatory regimes that govern responses to ship-source and non-ship source marine oil spills. The current regimes include five different authorities:

- The Canadian Coast Guard
- Transport Canada regulation of shipowners, Response Organizations and Oil Handling Facilities
- The National Energy Board regulation of pipelines and exploration and development on frontier lands
- The Newfoundland and Labrador and Nova Scotia Offshore Petroleum Boards' regulation of exploration and development in the east coast offshore Accord areas

Both the ship-source and non-ship source regimes are based on three pillars: preventing spills from happening; preparing for and responding to spills quickly and effectively; and clearly attributing responsibilities between the public and private sectors, based in large part upon the principle that the polluter pays for cleanups and any damage caused.

Further, the federal organizations engaged in the preparedness, response, and liability and compensation for oil spills in Canada embody two fundamentally different approaches. On the one hand, the Canadian Coast Guard is the national authority and is empowered and resourced to engage directly in marine spill response and to direct the actions of others, with immunity to financial damages for doing so. The other organizations that control spill response do so through the regulation of industry practices, setting standards, monitoring their implementation and enforcing compliance when necessary. The systems differ in terms of the lines of responsibility and accountability and in terms of the certainty of the results.

This study's intent was to examine the nature of the current Canadian ship-source and non-ship-source oil spill response regimes and the interface (or "boundaries") between them, assess the performance of the current regimes based upon established standards and broad industry indicators, and identify any problems that now affect response effectiveness and efficiency. This included:

- Documenting the legislative authorities, mandates and current operations of the federal government departments and agencies involved in marine oil spill responses, as well as those of the Canada-Newfoundland and Labrador Offshore Petroleum Board and the Canada-Nova Scotia Offshore Petroleum Board;
- Reviewing incident reports from the CCG and other sources such as the Transportation Safety Board;
- Collecting published statistics concerning the frequency and size of oil spills from ship sources and non-ship-sources;
- Gathering, through a questionnaire and interviews, the expert opinions of officials with significant experience in the management and operation of marine oil spill response; and
- Searching reports to Parliament from the Commissioner on the Environment and Sustainable Development to determine the results of past external performance reviews.

The meetings and teleconferences with experts in federal government departments and agencies and the joint-jurisdiction offshore petroleum boards raised a wide range of issues concerning how the current ship-source and non-ship source marine oil spill response systems operate and concerning the interface between them. They illustrated the differences in regulatory and operational approach among the regimes, and raised some important questions about how the regimes might be improved to address new challenges in future. In some cases, the experts stated that there was a need to clarify existing roles and responsibilities both to those who operate the regimes and to the general public.

The meetings did not, however, identify any specific gaps in jurisdiction or operational practices that now impair agencies' ability effectively to respond to a spill. In fact, based on the information collected, there is very little evidence for proceeding on the basis of the finding by the Tanker Safety Expert Panel that response programs outside the federal ship-source regime could benefit from additional support, and that the Canadian Coast Guard should be given the authority, when called upon, to deploy efforts to assess, control or mitigate environmental and socio-economic effects of such a spill.

The managers of Canada's ship-source and non ship-source marine oil spill response regimes now assure coordination through four mechanisms:

- The signing of Memoranda of Understanding and less formal letters of agreement;
- Joint exercises;
- Common use of the Incident Command System; and
- Extensive informal networking among the most involved staff at the regional level.

The study identified several issues concerning the current regimes and some opportunities for improved cooperation and collaboration among them. A prominent issue, as identified by the Tanker Safety Expert Panel, is whether to move from separate to unified regimes to govern marine oil spills from ship sources and from exploration and development sources on frontier lands. The considerations elaborated to date have all been at the level of principle; there has been no empirical evidence to date to demonstrate whether or not a unified or separate regime would ensure more effective or efficient spill responses. This subject deserves more study.

Opportunities for improvement include increasing the scope of existing memoranda of understanding; expanding the use of and clarifying policy with respect to Incident Command Systems and Unified Command; determining the federal government's response to British Columbia's desire for a much larger provincial role in marine oil spill regulation; applying best practices with respect to third party verification of Response Organization capabilities; increasing the number of joint exercises; improving the CCG Marine Pollution Incident Reporting System; and deciding whether CCG response planning and response operations should be extended beyond the control/containment/recovery of oil on water to include longer management of spill impacts.

REPORT ON GAPS IN CANADA'S MARINE OIL SPILL RESPONSE

SYSTEM BEYOND SHIP-SOURCE OIL

PART A MAIN REPORT

1. Introduction

1.1 Contextual overview

Successive Canadian governments have strived to improve the effectiveness of Canada's regimes governing planning, preparedness and response, remediation, and liability and compensation relating to marine oil spills.

In 2013, the Government of Canada initiated a comprehensive review of the current system to assess its effectiveness and how it could be improved to attain a world-class status. The Tanker Safety Expert Panel was mandated to review and assess Canada's ship-source oil spill preparedness and response regime and to make recommendations to the Government of Canada to make it a world-class system. Specifically, the panel assessed the system's structure, functionality, industry requirements and its overall efficiency and effectiveness. Its work was further informed by a pan-Canadian evidence-based risk assessment commissioned by Transport Canada.

In its first report, the Tanker Safety Expert Panel found that:

- *"There is a problematic gap at the intersection of federal and provincial jurisdictions in certain oil spill scenarios that fall outside the Canada Shipping Act, 2001;*
- *Response programs outside the federal ship-source regime could benefit from additional support, and that the Canadian Coast Guard, when called upon, should deploy efforts to assess, control or mitigate environmental and socio-economic effects of such a spill. This implies a broader interpretation of the Canadian Coast Guard's mandate, as set out in the Oceans Act; and*
- *The Government of Canada should clarify its policy on the authority of the Canadian Coast Guard to intervene or support the response to land-originating oil spills that result in marine oil pollution".*

In November 2016, the Government of Canada announced the Oceans Protection Plan, a \$1.5 billion investment to further improve marine safety and responsible shipping, protect Canada's marine environment, and offer new possibilities for Indigenous and coastal communities. These initiatives and programs include undertaking engagement and policy analysis to inform a proposal for a seamless, integrated response regime that goes beyond ship-source oil pollution and includes

all marine pollution from all sources. As part of this plan, Transport Canada (TC) and the Canadian Coast Guard (CCG) are undertaking engagement and policy analysis to inform a proposal for Cabinet for a seamless, integrated response system that goes beyond ship-source oil pollution and includes marine pollution from all offshore exploration and development and land-based sources.

TC and CCG contracted with an external consultant, ENTRANS Policy Research Group (ENTRANS), to conduct research and analysis concerning the gaps in Canada's current regime and to make recommendations on next steps and future work to address the gaps identified. The ENTRANS Project leader was Robert Lyman.

This report includes in Part B a detailed description of the legislative authorities and policy frameworks that govern the different regimes. This is essentially background, or reference, material for those less familiar with these regimes. It should be noted that, while the following description of the legislative regime governing the six different federal organizations with important emergency response delivery of regulation functions is fairly complete, the Project Manager was unable to obtain detailed information about some aspects of the operation of these systems, or expert comments on the interface among them. This is especially the case with respect to Oil Handling Facilities.

The issue considered by TSEP is in fact only a subset of the broader question that this study was asked to address i.e. how to improve the integration and seamless operation of all the federal marine oil spill response regimes. One should recall that the current regimes include five different authorities:

- The Canadian Coast Guard
- Transport Canada regulation of shipowners, Response Organizations and Oil Handling Facilities
- National Energy Board regulation of pipelines and exploration and development on frontier lands
- The Newfoundland and Labrador and Nova Scotia Offshore Petroleum Boards regulation of exploration and development in the east coast offshore Accord areas

Both the ship-source and non-ship source regimes are based on three pillars: preventing spills from happening; preparing for and responding to spills quickly and effectively; and clearly attributing responsibilities between the public and private sectors, based in large part upon the principle that the polluter pays for cleanups and any damage caused.

Further, the federal organizations engaged in the preparedness, response, and liability and compensation for oil spills in Canada embody two fundamentally different approaches. On the one hand, the Canadian Coast Guard is the national authority and is empowered and resourced to engage directly in marine spill response and to direct the actions of others, with immunity to financial damages for

doing so. The other organizations that control spill response do so through the regulation of industry practices, setting standards, monitoring their implementation and enforcing compliance when necessary. The systems differ in terms of the lines of responsibility and accountability and in terms of the certainty of the results.

1.2 Definition of a Seamless Regime

The concept of a “seamless regime” is a broad one. In principle, it could be created through changes in authorities, mandates, organizations, and/or operational guidelines and practices. In its essence, however, it seeks to ensure that, where a marine oil spill occurs from any source, there are clear and predictable authorities and procedures in place empowering the Canadian Coast Guard and other authorities to act promptly to address the environmental consequences, and that the inter-agency or inter-jurisdictional arrangements in place will support rather than impede such action.

The need for such improvements arises from two factors. The first is the likelihood of increasing oil movement by pipelines and potentially other land-based transportation modes due to the diversification of Canada’s oil export markets to the Pacific Rim and possibly other regions, and the increased risk of spills into the marine environment that may accompany this. The second is rising public expectations concerning the actions that governments will take to mitigate the effects of any marine pollution that might take place.

There is a question as to how to define the boundaries of the seamless regime. The scope of federal government emergency planning and response authorities and activities is broad and includes, inter alia, those carried out by departments like Environment and Climate Change Canada, Transport Canada, the National Energy Board and others. Public Safety Canada, as the federal department responsible for providing national leadership and coordination of Emergency Management activities among federal government institutions, is also responsible for the Federal Emergency Management Plan, which could be called into play in the event of very large spill responses. In principle, the attainment of a seamless response might also include consideration of how to achieve more cooperation and coordination among federal, provincial and municipal governments and other private sector parties and interest groups. The primary focus of this study, however, is on the policies, authorities and operations of the federal government organizations engaged in responding to marine oil spills, regardless of the origin of the spills.

2. Gap Analysis

2.1 Objective

The traditional objective of gap analysis is to determine which steps need to be taken in order to move an organization from its current state to its desired future state. It commonly includes (1) describing the current situation and especially the organization’s present attributes, competencies and performance levels, (2) defining

future objectives and identifying the factors needed to achieve them, and then (3) highlighting the gaps that exist and need to be filled.

In evaluating the effectiveness and efficiency of programs, evaluators often examine the ways in which the achievement of an organization's desired goals and outcomes are impaired by the absence of jurisdiction or authority, or by the fragmentation, overlap and duplication among different organizations and authorities. For the purposes of this study, we defined the term "gap" broadly, to include all of these things to the extent that they impair the successful response to an oil spill.

2.2 Methodology

The methodology used was to assemble all the available empirical information to determine the nature of the current Canadian ship-source and non-ship-source oil spill response regimes and the interface (or "boundaries") between them, to assess the performance of the current regimes based upon established standards and broad industry indicators, and to identify any problems that now affect response effectiveness and efficiency. This was to be supplemented by surveys, conducted by questionnaire and responses, of knowledgeable experts and practitioners in all of the front-line response organizations.

Specifically, the "discovery" phase of the study included the following actions:

- Reading of the published and online documents that describe the legislative authorities, mandates and current operations of the federal government departments and agencies involved in marine oil spill responses, as well as those of the Canada-Newfoundland and Labrador Offshore Petroleum Board and the Canada-Nova Scotia Offshore Petroleum Board;
- Search for incident reports from Transport Canada and the CCG that described the actions taken and problems encountered in responding to past spills, especially where these involved non-ship sources;
- Review of published statistics concerning the frequency and size of oil spills from ship sources and non-ship-sources
- Development and distribution to appropriate officials of a background document on the study including a questionnaire including eleven questions concerning the nature and effects of any 'gaps' in the current regimes and the opportunities for improvement.
- Meetings and teleconferences with key groups from each organization.

2.3 Results of Gap Analysis

2.3.1 Review of Documents

The Canadian Coast Guard and Transport Canada provided a broad range of background papers and online sources of information describing the legislative, regulatory and management regimes that now govern the ship-source and non-ship regimes in Canada for responding to marine oil spills.

In addition to these documents, the Project Manager researched and reviewed several online sources of information concerning the deliberations of the Tanker Safety Expert Panel, past reviews and reports to Parliament by the Auditor General for Canada, documents describing current and proposed provincial government oil-spill response regimes, and other relevant sources.

Taken together, these documents provided a good overview of the legal and institutional structures now in place governing marine oil spill response, of the requirements and standards imposed on industry (including shipowners, offshore oil and gas operators, owners of onshore oil handling facilities, pipeline owners and Response Organizations) and of the current guidelines governing incident command when responding to a spill. Part B of this report is largely based on the documentation provided.

2.3.2 Review of Incident Reports

The Canadian Coast Guard provided some examples of incident reports prepared by regional staff following CCG's involvement in marine oil spill responses. Without exception, the incident reports focused on the actions that were taken and their sequence, with little or no commentary on the inter-relationships with other federal agencies (apart from a list of the other organizations involved), on the resources that were used or on the organizational or management issues that were raised or the lessons learned. Unfortunately, with one exception, there were no incident reports available that would allow one to examine in detail what happened during past spills that involved multiple authorities or jurisdictions. The incident reports provided included no references to any gaps in the interactions among federal agencies during the responses that might have caused delays or reduced effectiveness.

The Coast Guard also provided a Pipeline Investigation Report by the Transportation Safety Board (TSB) concerning the consequences for the Trans Mountain Pipeline due to third-party damage to the Westridge Dock Transfer Line near Burnaby, British Columbia in July 2007. The incident was caused when a contractor excavating a trench for a new storm sewer line punctured the pipeline, resulting in the spill of approximately 234 cubic metres of crude oil, about 210 cubic metres of which was recovered. Crude oil spilled into Burrard Inlet Bay via the Burnaby storm sewer system. Kinder Morgan, the owner of the pipeline, responded to the spill, shutting down the pipeline and establishing a Unified Command, with the National Energy Board as the federal member and the British Columbia Ministry of the Environment

as the provincial member. A multi-stakeholder group was established with the National Energy Board as lead agency to share information during the remediation work ([link](#)).

The TSB report makes no reference to the role played by the Canadian Coast Guard. While the TSB found evidence of errors (mainly in communications) by the pipeline company, the contractor working to improve water and storm sewers, and the consultant advising the contractor on the location of the pipeline, it found no fault with the National Energy Board regulations or with the multi-agency process that addressed the post-spill response.

Another case involved an incident on March 5 2017 when there was a marine spill of diesel fuel at the Burdwood Island Fish farm, located near Echo bay on the mainland coast of Queen Charlotte Strait. The spill, of about 520 litres, was from a floating storage tank and was due to human error. According to an internal Transport Canada memorandum, the Canadian Coast Guard was the first responder on the scene with personnel and resources from the search and rescue station at Port Hardy. The owner of the fish farm, Cermaq Canada, contracted the services of Western Canada Marine Response Corporation.

The subsequent review of this spill response indicated that the incident did not properly fall under Transport Canada's oil spill response regime. While there were a number of federal and provincial organizations with some regulatory overview responsibilities, including Fisheries and Oceans Canada and the BC Ministry of Forests, Lands and Natural Resource Operations, the responsibility for response rested with Cermaq Canada, aided as needed by the Western Canada Marine Response Corporation. The memorandum concluded that the incident underlined the need to clarify the roles, responsibilities and authority of federal agencies in non-ship-source oil spills.

A more fundamental question, perhaps, is why the Canadian Coast Guard considered it part of its mandate, after the initial response, to remain on as part of a Unified Command to deal with a very small spill.

In summary, the CCG incident reports contained no evidence of a gap or shortcoming in the interface between the ship-source and non-ship-source regimes. The descriptions of subsequent incidents by the TRB and Transport Canada indicated that there were sometimes problems in the communications among responding agencies; this did not indicate that there were gaps in authorities or in meeting the required response standards.

2.3.3 Frequency and Size of Onshore and Offshore Oil Spills

Ship-source Spills

The International Tanker Owners Pollution Federation (ITOPF) since 1970 has maintained a database of the oil spills from tanker vessels and barges in all countries

([link](#)). The number of large spills (larger than 700 tonnes) has decreased significantly over the last few decades and since 2010 averages 1.8 per year, none of which took place in North America. There has also been a decline in medium-sized spills (7-700 tonnes); the average number of spills per year in the 1990s was 28.1, reducing to 14.9 in the 2000s and 4.9 in the post-2010 period. This is occurring in spite of significant increases in the volume of oil moved by tanker. The volume of oil lost as a result of tanker accidents from 1970 to 2017 was 5.74 million tonnes. Of this total, 56% was in the 1970s and 1% was in the post -2010 period. Most of the oil lost after 2010 was due to accidents in Asia.

Data on oil spills from tankers in Canada are not readily available, even from Internet sources. According to the Transport Canada website, Canada's east coast has about 4,000 inbound trips by tankers each year, about one fifth of the 20,000 inbound vessel trips in that region. Of the various petroleum and fuel products moved annually into and out of Canadian ports, 82 million tonnes are in and out of Atlantic Canada and 25 million tonnes in and out of Quebec. In 2015, tankers accounted for about 0.75% of the departures and arrival of vessels at west coast ports.

Spills from Pipelines

In its 2016 statistical summary of pipeline occurrences, the Transportation Safety Board of Canada described the performance of the federally regulated pipeline system, which contains 42 companies, including eight that transport both oil and natural gas. The board divides occurrences into two categories, accidents and incidents. In 2016, those companies transported 196 million cubic metres of oil (1.2 billion barrels) along approximately 18,500 kilometres of oil pipelines. The statistical summary indicated the number of accidents and the accident rate (in terms of accidents per exajoule of energy transported) during the 10-year period 2007 to 2016:

- The accidents per exajoule averaged 0.6 from 2006 to 2015, but declined to zero in 2015 and 2016.
- Over that period, 42% of pipeline accidents occurred at compressor stations and gas processing plants and 28% occurred on transmission lines.
- The remaining 30% occurred at pump stations, terminals, meter stations, and on gathering lines.
- There were 39 occurrences over that period resulting in a release of product.
- Of those, crude oil was released in 12 accidents, with eight releases of then less one cubic metre (6.29 barrels), and four releases between 26 and 1,000 cubic metres (between 157 and 6,290 barrels).

The statistics concerning pipeline incidents show similar trends:

- The number of incidents rose from about 60 in 2007 to a peak of over 170 in 2012, before declining to 100 in each of 2015 and 2016.

- In 2016, 8% of incidents occurred at pump stations, 5% at terminals, and 3% at gathering lines for oil pipelines.
- There was one crude oil release of 1.5 cubic metres or more (9.44 barrels or more) in 2016 ([link](#)).

Spills from Offshore Exploration and Development

The Canada-Newfoundland and Labrador Offshore Petroleum Board reported 113 spills from offshore exploration and development activity from 2010 to 2017, an average of 14 per year, involving 29,000 litres, an average of 3600 litres (or 22.6 barrels) per year.

The Canada-Nova Scotia Offshore Petroleum Board reports that over the period April 2009 to March 2017, there were 45 spills of oil or oil products (5.6 per year on average), with all but one under 100 litres.

In short, the data from authorities that monitor onshore and offshore oil spills show a declining number and size of spills. This, in itself, does not demonstrate the absence of any gaps, overlaps or other problems in the interface among the Canadian marine spill response regimes. It indicates only that the fundamental objective of these regimes (i.e. to reduce both the frequency and impact of marine spills) is being well served.

2.3.4 Responses to Questionnaire

The Project Manager, after consultation with Transport Canada and the Canadian Coast Guard, developed eleven questions to be sent to expert personnel in Transport Canada, the Canadian Coast Guard, the National Energy Board, and the offshore petroleum boards. The list of questions is attached as Annex A. The purpose of the questionnaire was to seek information that would confirm the nature and magnitude of the “gaps” in the current regime, in the hope that in so defining the problem, the study could provide a solid grounding to proceed towards exploring options, in the form of a seamless regime or some other solution well tailored to the nature of the problem.

Unfortunately, only the National Energy Board provided detailed written responses to the questions posed.

In its responses, the NEB stated that there are no gaps between the National Energy Board regime for oil spill response and those of other federal government authorities. It stated that the *“NEB is clearly the lead/primary agency for ensuring a response to spills from NEB-regulated infrastructure (under the NEB Act and COGO Act). Our operations require the Polluter to have plans and processes in place. Our response systems and the management system required of our operators have mechanisms for engaging departments should the need arise.”*

It also stated that, "There are no gaps in our authority or in operations. Outside of our regulated community and close partners, there could be gaps in understanding the roles and responsibilities of the NEB and of the company/operator in the event of an incident. The NEB has been working to increase transparency and to share information on our emergency management capacity since 2015."

The NEB acknowledged that there is an overlap in federal authorities with respect to marine oil spill response at the Westridge Marine Terminal in Burnaby, B.C. The terminal's operations authorization comes from the NEB, making it subject to the *National Energy Board Act's Onshore Pipeline Regulations*. As the terminal loads vessels with oil, it is also covered by the *Canada Shipping Act, 2001*, which results in additional oversight by Transport Canada (prevention and preparedness) and CCG (response). CCG (Western Region) and the NEB have an understanding related to the oversight of response in the event of an incident at the terminal.

Finally, the NEB noted that, during the past ten years, there have been no incidents from NEB-regulated infrastructure that have resulted in a significant spill to the marine environment.

The NEB response also offered several useful comments concerning ways to move towards a more integrated and seamless federal oil spill response regime. These will be noted in section 5.

Without written responses to the questionnaire, the Project Manager had no detailed examples or evidence of gaps, overlaps or other problems with the interface between the ship-source and non-ship-source marine oil spill response regimes.

2.3.5 Meetings and Teleconferences

The Canadian Coast Guard organized a series of multi-participant meetings to provide an opportunity for discussion of the issues and possible changes.

In each of the meetings, the Project Manager asked the participants to identify the gaps in the current interaction between the current federal regimes for responding to ship-source and non-ship-source marine oil spills, the overlaps among these systems, and the opportunities for increasing cooperation and integration so as to produce a more seamless regime.

The responses were mostly focused on the question of whether there were gaps. The following is a summary of the main points made:

- The representatives of the offshore petroleum boards and of the National Energy Board thought that there were few, if any, gaps in authority among the regimes that impeded effective and efficient spill response. They noted that, while there are important differences in the design of the regimes, these were based on the underlying legislation and to a large extent the differences between the operations and risk profiles of the industries being regulated.

They viewed their regimes as effectively regulating the requirements that industry must meet during spill response. At the same time, they acknowledged that they had few in-house resources that would be needed to take over the management of a response should it ever arise that the industry had failed to do so adequately; they would have to call on outside services, including Response Organizations and the Canadian Coast Guard.

- The representatives of the offshore boards and the NEB considered that, in practice, there has been good cooperation between them and the Canadian Coast Guard when responding to spills. They thought that this had been aided through the establishment of memoranda of understanding, exercises and the common use of Incident Command Systems. It was acknowledged that the organizations were at different stages in the implementation of ICS (the offshore boards have not formally adopted ICS) and that, in some cases, there were differing expectations as to the roles that would be played during Unified Command during exercises to address potential Tier 2 and Tier 3 spill incidents. One official commented that there might be a gap in the training used in the ship-source and non-ship-source regimes. The National Energy Board noted that in 2014 it had proposed an agreement to clarify roles and responsibilities with respect to spills at the Westridge Terminal in British Columbia, but that the Canadian Coast Guard had not yet responded.
- The representatives of the Canadian Coast Guard at headquarters and in the regions offered a wide range of comments on the gaps in the current regimes. Some noted that the various regimes place quite different requirements upon polluters in terms of the requirement to actually respond to a spill and the liability for subsequent damages. They agreed that there are no gaps in legislation authorizing the Government of Canada to direct spill responses when the CCG considers that its involvement is needed and the NEB or the offshore boards seek their assistance.
- Some thought that there is a “gap” in terms of public expectations and in terms of the public perception of problems created because of the existence of different regimes. The CCG has the in-house capability to respond to and take the lead in managing a spill, which responds to a public perception that the Government of Canada should always take charge when responding to environmental emergencies. Some considered that, at a minimum, there was a need to clarify roles and responsibilities. Others considered that there are already so many federal, provincial and private sector organizations involved in spill response that the complexity alone creates confusion and causes delays in response; they argued that creating a single, unified response organization would increase simplicity and public credibility.
- The CCG officials expressed different views concerning the role that ICS can and should play in addressing gaps and creating a more seamless regime. Some noted that the CCG is itself behind schedule in implementing ICS; it takes

time for officials to learn it through practice, experience and use. In the view of some, staff turnover over the past decade has hampered implementation. Different CCG regions apply ICS differently, especially in their willingness to “integrate with the polluter” as part of the ICS team. Some CCG regions view ICS as hampering rapid response; when their staff arrive first on the scene of a spill and have the resources and training to act, their instinct is to do so without waiting to engage other possible interests, jurisdictions and sources of expertise.

- The CCG regional representatives stated that they did not work with the NEB very often. They indicated, however, that the differences in the roles and responsibilities of the two organizations seem clear.
- Transport Canada representatives commented on whether there exist any gaps between the authorities and operations of the Canadian Coast Guard and those of the Response Organizations that Transport Canada is responsible to regulate. They acknowledged that there are important differences between the two legislative authorities. They noted three specific gaps. The first relates to one of differing expectations as to the roles that the Coast Guard and the Response Organizations will play; greater clarity is needed. The second is that a better alignment of emergency management responsibilities is desirable between the federal and provincial governments, especially on the west coast. Third, more attention is needed as to how the various federal and provincial spill response organizations will collaborate on achieving long-term recovery after the immediate on-water spill response is complete. (This point was also echoed by the CCG staff, who noted that it is often unclear when the “hand-off” of responsibilities for recovery will commence and to whom.)

In summary, the meetings and teleconferences with experts in federal government departments and agencies and the joint-jurisdiction offshore petroleum boards raised a wide range of issues concerning how the current ship-source and non-ship source marine oil spill response systems operate and concerning the interface between them. They illustrated the differences in regulatory and operational approach among the regimes, and raised some important questions about how the regimes might be improved to address new challenges in future. Some also indicated a need to clarify existing roles and responsibilities both to those who operate the regimes and to the general public. They did not, however, identify any specific gaps in jurisdiction or operational practices that now impair agencies’ ability effectively to respond to a spill.

2.3.6 Previous Auditor General Reports

The Commissioner of the Environment and Sustainable Development, a sub-authority of the Office of the Auditor General of Canada, regularly submits reports to Parliament concerning the performance of federal government programs and agencies in attaining environmental policy and program objectives. Over the past

decade, there have been three reports whose findings are germane to the present study.

Fall 2010 Report

In the Fall 2010 report, the Commissioner reviewed the performance of the Canadian Coast Guard in responding to oil spills from ships. The review's observations and recommendations addressed the CCG performance both in planning and preparing for spills and in responding to them. In the section on spill response, the Commissioner focused on problems observed with the CCG Marine Pollution Incident Reporting System, which since 2001 has recorded and tracked marine pollution incidents and subsequent actions ([link](#)). After examining a random sample of 31 files from the system (from January 2007 to December 2009), the Commissioner found that the CCG responses to these spills:

"were poorly documented and that information contained in the MPIRS was incomplete and of questionable quality. For example, the MPIRS reports do not clearly indicate the level of effort spent by the Coast Guard in responding to spills or the results of the response efforts, such as the estimated amount of oil recovered and the environmental impacts resulting from the spills. We also noted some significant variations from year to year in terms of the estimates of the volume of spills. We were informed that these anomalies might be due to individual incidents or input errors. However, there is no quality assurance program for the MPIRS, which may otherwise have found these errors..."

Incomplete and unreliable documentation on responses to ship-source spills affects the Canadian Coast Guard's ability to know how well it is achieving its objectives. Limitations associated with the MPIRS also prevent the Coast Guard from conducting reliable trends analysis on ship-source spills, which in turn is important for conducting risk assessments and assessing the adequacy of equipment and capacity."

The Commissioner recommended that the Coast Guard implement a quality assurance program for its Marine Pollution Incident Reporting System and establish procedures so that the results of spill responses are consistently documented. In its response, the Canadian Coast Guard agreed with the recommendation and stated that it would undertake a review to identify the required characteristics and parameters of a quality assurance program for its reporting systems for marine pollution incidents; it would also strengthen its procedures so that the results of spill responses were consistently documented.

Fall 2012 Report

For his Fall 2012 report to Parliament, the Commissioner audited the performance of the offshore petroleum boards in managing offshore oil and gas activities. The review included how the boards prepared for and responded to spills ([link](#)).

The Commissioner's report noted an important difference between ship-source and exploration and development-source oil spills.

"A spill from a ship involves a well-defined and limited quantity of oil, but it is difficult to predict the amount of oil that might ultimately be released from underground reservoirs as a result of a loss of well control (a blowout)."

The Commissioner noted that, as part of the process of obtaining authorization to drill or operate a well, operators are required to submit spill response plans for board review. After examining how the boards reviewed the plans, the Commissioner found that board review ensured that plans were up to date and included most key elements. He noted, however, that neither board had formal, systematic methods for reviewing spill response plans.

He also identified gaps in the Newfoundland and Labrador Offshore Petroleum Board's review of the arrangements that operators are supposed to have in place to obtain equipment and personnel in the event of a spill.

"Some of the operators have plans that indicate they could rely on the Canadian Coast Guard to provide resources for their spill response; however, the Coast Guard does not have a specific mandate to respond to spills from offshore oil and gas facilities. In recent years, the Coast Guard has participated only as an observer in operator response exercises. The plans also indicate that operators would employ Canadian and international private sector response organizations for response services if a major spill occurs. Transport Canada has certified Canadian private sector organizations to respond to spills of up to 10,000 tonnes of oil from ships. However, no regulator has certified the capacity of these organizations to respond to oil and gas spills, or considered the possibility of conflicting demands for their resources."

The Commissioner recommended that the boards seek the advice of Transport Canada, the Canadian Coast Guard, and international partners to design an approach for third party verification of the capacity of organizations that would respond to spills from offshore oil and gas facilities. In their responses, the boards agreed with the recommendation with the understanding that *"they would task operators with defining an approach – to the satisfaction of the boards – that ensures third party verification of the capacity of organizations that they would rely on for responding to spills from offshore oil and gas facilities. In providing guidance to operators in undertaking this task, and in evaluating the acceptability of proposed approaches, the board will consult with Transport Canada and with the Canadian Coast Guard."*

With respect to the Canada Newfoundland Offshore Petroleum Board, the Commissioner found that there were deficiencies in its internal emergency response plans:

The Board does not have in-house technical expertise to manage a major spill or a loss of well control, but it has recently established a contract to obtain some of the drilling expertise it might require to begin to fill the gap. The Board would also have to rely on

others to provide spill response equipment, but it has not established the necessary formal arrangements – for example, with private contractors. Finally, we found that, since 2004, the Board has not tested its plan or held emergency exercises that might enable it to identify and address potential problems with the plan.”

The Commissioner added a long list of other deficiencies and potential problems, including:

- The general lack of a coordinated, well-defined set of plans on the part of federal authorities that would support an efficient and timely response to a major spill;
- Inconsistencies among existing federal plans and a lack of clarity as to who would perform some key roles during a major spill, and how;
- Incomplete memoranda of understanding between the offshore boards and the federal authorities with which they would cooperate during an emergency;
- Unresolved jurisdictional issues between entities; and
- A lack of mandate and resources that would allow the Canadian Coast Guard to assist in the response to a major offshore oil spill.

With respect to the unresolved jurisdictional issues, the Commissioner’s report stated:

“During our audit, we heard differing views about when a spill would fall under the Accord Acts, and hence be the jurisdiction of the boards, or under the Canada Shipping Act, 2001 and be the responsibility of another entity. Partly as a consequence, the possible roles of the Canadian Coast Guard in the event of a major offshore spill need to be clarified, in particular what resources, expertise, and leadership it would provide if one of the boards were leading the response.”

In response to these observations, the federal departments and agencies involved (Natural Resources Canada, the Canadian Coast Guard, Transport Canada, and Environment Canada) stated that the nature of a spill would determine the departments and agencies involved, as well as their level of engagement. They indicated that they would review roles and responsibilities with respect to an offshore spill, taking into consideration *“the legal authority, mandate, and available resources of each organization, and identify gaps, while acknowledging the primary role of the operator in spill response”*.

Fall 2015 Report

In his 2015 Fall Report, the Commissioner of the Environment and Sustainable Development examined the National Energy Board’s oversight of federally regulated pipelines. The main parts of the report dealt with the extent to which the NEB tracked pipeline company compliance with the pipeline approval conditions covering a wide range of issues that arise during the Board’s considerations of applications for

certificates. The report also addressed how well the NEB is doing in fulfilling its role as lead federal agency in pipeline emergency response. It found that while *“the Board is currently fulfilling its roles as the lead federal agency in pipeline response in the areas we examined, there are important opportunities for improvement”* ([link](#)).

Specifically, the Commissioner recommended that the board consolidate the results of different risk assessments to inform a mandate-specific emergency management plan, be more demanding in its review of companies' emergencies procedures manuals, and increase public information.

The Commissioner noted in passing that it is important for the NEB *“to coordinate with industry stakeholders and other federal departments, such as Natural Resources Canada and Public Safety Canada, as well as with provincial and municipal governments.”*

The Commissioner noted that the Board had *“formalized arrangements with federal partners such as Natural Resources Canada and the Transportation Safety Board of Canada, and is developing an agreement with the Canadian Coast Guard.”* He recommended that the Board consider building similar relationships with other provincial and federal counterparts as appropriate, but did not identify any gaps or failings in the current relationships.

2.4 Departmental Performance Reports

Given the central role that the Canadian Coast Guard plays in the operational response to ship-source marine oil spills, the Project Manager reviewed the Fisheries and Oceans Canada Departmental Performance Reports over the six-year period 2011-2012 to 2016-2017, with specific reference to the results and performance of Environmental Response Services. The performance reports set out, for each year, the key expected results, the performance indicators against which these results were assessed, a target, and an actual result in terms of a percentage.

The expected results changed over time. In 2012-2013 and 2013-2014, the expected results and the corresponding performance indicators were these:

<u>Expected Result</u>	<u>Performance Indicator</u>
Environmental, economic, and public safety impacts of marine pollution events are mitigated	Percentage of reported cases in which the response was appropriate relative to the pollutant, threat and impact
Respond to reported cases of ship-source marine pollution	Percentage of marine pollution responses with trained personnel, strategically placed equipment, and a mobilization plan
Appropriate response to ship-	Percentage of response action that meets

source marine pollution threats

incident response plan objectives

In both years, the actual results achieved against all expected results were reported as 100%.

For the 2013-2014 to 2016-2017 fiscal years, the only result stated was the first, i.e. "Environmental, economic and public safety impacts of marine pollution events are mitigated", with the same performance indicator.

In all years, the department reported that actual results achieved were 100%. This suggests that there were no important "gaps" in the performance of the ship-source oil spill response program. If there are gaps in the effective and efficient delivery of environmental response services due to the relationship between or authorities underlying the ship-source and non-ship-source marine oil response regimes, the performance reports made no reference to them.

2.5 The Current Interface Among the Regimes

The managers of Canada's ship-source and non ship-source marine oil spill response regimes now assure coordination through four mechanisms:

- The signing of Memoranda of Understanding and less formal letters of agreement;
- Joint exercises;
- Common use of the Incident Command System; and
- Extensive informal networking among the most involved staff at the regional level.

Transport Canada and Fisheries and Oceans Canada in April 1996 agreed on a bilateral Memorandum of Understanding respecting Marine Transportation Safety and Environmental Protection, the purpose of which was *"to provide an administrative framework that ensures a coherent and consistent approach to all aspects of marine transportation safety and environmental protection"*. This MOU sets out several principles and commitments, lists the statutes that impinge directly on the areas of administration, and sets out the responsibilities of each department, establishes an issue resolution mechanism and sets out several functional annexes that address discrete functions of common concern. It authorizes the development of annexes to address the day-to-day operational coordination between the regional offices of the two departments. Notably from a governance perspective, it establishes the Transport Canada – Fisheries and Oceans Interdepartmental Affairs Committee.

In 2014, the Canadian Coast Guard concluded memoranda of understanding with the Canada-Newfoundland and Labrador Offshore Petroleum Board ([link](#)) and the Canada-Nova Scotia Offshore Petroleum Board ([link](#)). The contents of the memoranda are very similar. The agreements provide that the parties will develop annual joint work plans; cooperate, share information and maintain regular contact

to promote safety and environmental protection through effective spill preparedness and response, training and exercising; and provide mutual support. The memoranda set out a list of services that the Canadian Coast Guard may provide to the Boards in an emergency situation:

- Review of spill response plans
- Review and advice on emergency preparedness
- Operational advice to and liaison with Board staff regarding spill response activities, as part of the monitoring of an operator's spill response
- Operational field monitoring and/or surveillance or active response operations by CCG on behalf of the Board

The memoranda also provide that the parties will coordinate communications efforts to ensure consistent messaging to the public. The following are links to the agreements.

It may be noted that the commitments for actual assistance in an emergency are all one-sided; that is, they describe the services that the Canadian Coast Guard will provide to the Boards, with no services listed that the Boards will provide to the CCG. This perhaps reflects the different levels of resources available to each party.

The National Energy Board has memoranda of understanding with the Canada-Newfoundland Offshore Petroleum Board and the Canada-Nova Scotia Offshore Petroleum Board.

The MOU between the NEB and the NSOPB was signed in November 2008. Its stated purpose is *"to pursue cooperation and partnership"*. Cooperation may *"take the form of staff exchanges; sharing of compliance data and reports; emergency management planning and exercises; joint training initiatives; shared resources for compliance assurance; resource assessment and information management activities; and consultative regulatory development"*.

The MOU between the NEB and the CNLOPB was signed in January 2015. Its stated objective is *"to enhance the cooperation and coordination of activities between the Participants related to safety, security, the environment, and resource conservation, including activities respecting regulatory matters, the sharing of resources, and emergency management"*. The agreement designates three *"areas of cooperation"*: regulatory matters, resource sharing and cost recovery, and emergency management. With respect to regulatory matters, it provides for *"exchange of information on regulatory requirements, guidelines, best practices, development, oversight and processes"*, and states that the Participants will seek joint initiatives *"where beneficial"*. The resource sharing relates to exchanges of technical staff. Cooperation in emergency management will take place *"by participating in and sharing information on emergency management planning, exercises and response, joint training initiatives, and meetings"*.

Neither of the memoranda between the NEB and the offshore petroleum boards addresses issues of jurisdiction, the division of legislative authorities or problems relating to administrative practice.

No memorandum of understanding governs the relationship between the Canadian Coast Guard and the National Energy Board with respect to possible areas of cooperation such as those that might arise in the event of a marine oil spill originating on land from a NEB-regulated pipeline or from exploration and development wells in Canada's North. In 2012, during an exercise at the Westridge Terminal in British Columbia the parties identified a potential jurisdictional overlap and agreed to enter into a memorandum of understanding, but that has not occurred. There is, however, an undated letter from the Vice President of Operations of the NEB in which she proposed a "clarification of roles". Specifically, she proposed an understanding based on the following:

"In exercising on, or responding to spill or emergency events at OHFs, the NEB concurs that the CCG is the lead federal response agency when a vessel is attached and transfer of oil is underway. This position is consistent with the CCG's Emergency Response Matrix provided to the Senate Energy, Environment and Natural Resource Committee in 2013. In all other scenarios where the OHF is determined to be a pipeline, the NEB is the lead federal response agency."

The CCG has not responded to this letter to confirm whether or not it shares the NEB's understanding. It is also notable that this latter only addresses the question of division of responsibility in relation to Oil Handling Facilities. It does not clarify the division of responsibility for, or possible cooperation concerning, marine spills that originate in other NEB-regulated facilities.

Transport Canada, as represented by the Marine Security Directorate, has negotiated virtually identical memoranda of understanding with the offshore petroleum boards. The stated purpose of these memoranda is to facilitate coordination of activities and to avoid duplication of work with respect to marine safety, occupational health and safety, and environmental protection. Much of the texts concern the exchange of information, technical advice, and consultation. However, in annexes, the memoranda set out quite clearly the division of jurisdictional roles and responsibilities, including notably enforcement responsibility for marine ship safety, occupational safety and health and environmental protection. In summary, with respect to environmental protection, the offshore boards are responsible for enforcement on drilling vessels on location in offshore areas with valid authorization, while Transport Canada (Marine Safety) is responsible for enforcement on drilling vessels and supply or support vessels in all other cases.

Beyond the legal authorities and collective management structures used to govern the ship-source spill system, federal departments use a variety of techniques to improve cooperation and coordination at the operational level, including memoranda of understanding and management guides setting out agreed procedures and the roles and responsibilities of departments following notice of a marine incident. For

example, some Regional Offices of Transport Canada and CCG have developed Exceptional Marine Occurrence Management Guides that provide detailed guidance on the roles and responsibilities of units in both agencies and operational procedures to be used during an “exceptional marine occurrence” to make the alert process more effective and efficient. An occurrence is a situation in which a vessel appears to be unable to navigate normally because of its operational conditions, and intervention is needed to protect the safety of the operators or to protect the environment.

The guides contain a detailed description of the operating procedure in the form of a flow chart setting out the steps required to activate the Response Management System.

As part of this effort, the CCG is establishing an Incident Command System (ICS) to provide a more effective response to a potential spill, integrating operations with key partners such as the private sector Response Organizations. Environment and Climate Change Canada is adapting its provision of operational science under the ICS structure. ICS is an internationally accepted incident management system used for the command, control, and coordination of incident response operations

3.0 Options for Improved Cooperation and Collaboration

3.1 Expanded Coverage or Scope of Memoranda of Understanding

On the basis of the information collected during the discovery phase of this study, it appears that all, or almost all, of the organizations now engaged in marine oil spill response seek to conclude memoranda of understanding with other federal authorities whose services they use or by whom their services are used. The purposes of the memoranda generally are to clarify roles and responsibilities, to confirm agreements as to the division of responsibilities in situations where real or potential overlaps of responsibility may arise, and to establish cooperative mechanisms to ensure joint planning, training, exercises, and coordination of communications efforts.

The only “gap” that was identified is the absence of a memorandum of understanding between the National Energy Board and the Canadian Coast Guard. As previously described, in 2012 the NEB sent a letter proposing an understanding concerning the division of responsibilities between it and the CCG concerning responses to spills that might occur at the Westridge terminal in Burnaby. The CCG has not responded. While the nature of the response may be affected partly by the changes that will be effected by the Oceans Protection Program, this would seem to be a matter that can and should be addressed soon. It should be noted that a MOU, when ultimately negotiated, should properly be expanded to address the roles and responsibilities of the NEB and the CCG with respect to potential spill responses on frontier lands, and perhaps include provisions relating to joint exercises and training and consultation concerning coordination of public communications during emergencies.

3.2 Expanded Use of Unified Command Systems

Incident Command Systems

According to ICS Canada, *"the Incident Command System is a standardized on site management system designed to enable effective, efficient incident management by integrating a combination of facilities, equipment, personnel, procedures, and communications operating within a common organizational structure."*

ICS, in short, is a system designed to ensure that, when multiple organizations and individuals are engaged in responding jointly to a common problem or event, they do so in a way that allows for an orderly and predictable division of labour based upon the knowledge and competencies that each brings to the process, in the interests of achieving an effective and efficient response. ICS presents standardized organizational structure, functions, processes, and terminology, all of which is intended to improve communication within the group. In theory, the ICS framework forms the basis for interoperability and compatibility that will, in turn, enable a diverse set of public and private organizations to conduct well-integrated and effective incident response operations.

ICS has been accepted in principle by many organizations in North America as a helpful tool in deciding how to respond to various emergency response situations. Its advocates celebrate it as a way to involve a broad range of stakeholders while at the same time establishing a common set of rules and terminology that facilitates cooperation among potentially competing organizations and jurisdictions. There are several important decisions that must be made in the process of implementing ICS with respect to a specific incident. One is how to establish the command function; Typically, this is done at the beginning of incident response. The agency with primary jurisdictional authority over the incident designates the individual at the scene responsible for establishing command. When command is conferred (or transferred) to that individual, a chain of command follows; that is, an orderly line of authority within the ranks of the incident management organization.

In incidents involving multiple jurisdictions, as would potentially arise in response to a marine oil spill, a unified command is commonly formed; this is a single "jurisdiction" with multiagency involvement that allows agencies with different legal, geographic, and functional authorities and responsibilities to work together effectively. Ideally, this is done in a way that does not affect or undermine individual authority, responsibility or accountability.

Operating in an ICS structure is not intuitive; those who participate need training in the procedures and terminology and practice in carrying it out, if only in pre-emergency exercises.

All of the federal organizations that are potentially involved in marine oil spill response, whether from ship-based or non-ship-based sources, seem to acknowledge

in principle the benefits that might be gained in terms of improving collaborative response if they were to adopt ICS as a standard operating procedure and train their staffs accordingly. In practice, there appear to have been some barriers to implementation.

The Greater Vancouver Integrated Response Plan

One example of the use of Incident Command Systems with potentially heavy use of Unified Command is the Greater Vancouver Integrated Response Plan for Marine Pollution Incidents. This plan is intended to serve as the guide for multi-agency on-water response to serious oil pollution events in the area of English Bay and Burrard Inlet. It is the result of a cooperative effort by federal government departments, provincial Ministries, Municipalities, First Nations, the Vancouver Port Authority and private companies, including the Western Canada Marine Response Corporation (WCMRC). This plan will focus on ship-source and mystery-source spills of petroleum in the marine environment as covered by the *Canada Shipping Act, 2001*. In such cases, the Canadian Coast Guard would normally serve as the designated lead agency to respond to spills. Nonetheless, the plan implicitly endorses the increased use of Unified Command. Under the CSA 2001, the Canadian Coast Guard is the Incident Commander for the federal government. The Greater Vancouver Integrated Response Plan envisions a situation in which the CCG would nevertheless practice unified command with provincial agencies, municipal agencies, Indigenous communities and others.

The list of jurisdictions and stakeholders that have agreed in principle to support the implementation of the plan is impressive. It includes, within the federal government, the Canadian Coast Guard, Fisheries and Oceans Canada, Environment and Climate Change Canada, the National Energy Board, Public Safety Canada and Transport Canada. The provincial government authorities included are the B.C. Ministry of Environment and Emergency Management BC. The local governments and other municipal organizations include the cities of Vancouver, North Vancouver, and Burnaby; the Districts of North Vancouver and West Vancouver; and the Vancouver Coastal Health Authority, the Vancouver Fraser Port Authority and the North Shore Emergency Management Office. The First Nations involved are the Squamish, Tsleil-Waututh, and Musqueam. Finally, the private sector organizations are the WCMRC and the Vancouver Aquarium. The plan sets out in broad terms which roles and responsibilities, or special interests, pertain to each participating organization.

3.3 Creation of New Authorities and Organizational Structures

One of the key issues in the consideration of how to achieve a more integrated and seamless marine oil spill response regime in Canada is whether to combine the current regimes governing ship-source spills with those governing spills from oil industry facilities engaged in oil and gas exploration and development. While it sometimes suggested that this would constitute a relatively minor change, in fact it would represent a significant departure from the current legislative and policy frameworks, as well as a significant organizational change. Further, it would have

important implications in terms of finances and other resources. There are many considerations that should be taken into account.

Some of these were highlighted in the submissions to the Tanker Safety Expert Panel during the first phase of its proceedings. The stakeholders making submissions included representatives of the shipping industry, the oil industry, federal and provincial government agencies, and private sector Response Organizations. The following summarizes the main arguments advanced in favour of unifying the regime under the authority of the Canadian Coast Guard (CCG) and continuing separate regimes with both the CCG and offshore boards (and National Energy Board for northern areas).

Considerations Favouring Unification

- The existence of two separate governmental organizations responsible for marine oil spill response sometimes creates confusion in the minds of the public and in the minds of the responders to a spill as to roles, responsibilities and mandates, and thus may contribute to delays in response.
- It would better assure the availability of the resources of private Response Organizations to aid in responding to large offshore spills. While RO's are sometimes contracted by oil companies to provide response services, they have no explicit mandate to do so, and do not necessarily stock the resources that would be required to do so. Further, including them under responder immunity legislation for offshore spills, as now is done in the case of shipping under the *Canada Shipping Act 2001*, would provide an incentive to ROs to invest in providing a better response capability. It would eliminate the present uncertainty as to whether ROs can be "directed" by CCG, Environment and Climate Change Canada and/or another government agency to respond to non-ship-source spills. (This is how the consideration was worded in the submission to TSEP. In fact, the CCG does not direct the RO, but rather the polluter, which then employs the RO under contract.)
- A consistent and unified regime at the federal government level might smooth the way to closer cooperation and integration of federal and provincial response operations.
- There is a risk of duplication of effort (e.g. in R&D, stockpiles, and maintaining oversight capability).
- "The public is likely to expect and demand that the Canadian Coast Guard demonstrate more active control over events."

Considerations Favouring Separation

- Oil exploration and oil shipment are two entirely separate commercial operations with largely different players. In addition, exploration is in fixed locations and shipping by its very nature is global. The risk profiles differ, as do ownership, responsibility and the ability to act/react locally.

- Oil companies are typically best placed to respond to incidents at their installations, as they have the manpower, the expertise, and the logistical support. Ship crews, in contrast, have exceptionally limited resources in any one location. The benefit of separate systems is, therefore, that the inherent strengths and weaknesses of the two separate commercial activities can be harnessed/addressed so as to provide an optimal solution to any incident.
- Each industry bears its own risks and costs; there is no pooling of the risks and liabilities and no cross-subsidization of one industry by the other.
- There is a distinct governance framework for each industry, which makes the costs of the regime more transparent and acceptable to the industry that pays for the subject regime.
- The shipping industry is governed by a number of international conventions (including liability conventions) that have been incorporated into Canadian law. These were not designed for the offshore exploration and development industry, and they should not apply.

At the level of principle, it is not obvious which of these positions is correct. It is interesting to note that no evidence was provided to the TSEP to demonstrate that either a unified or separate regime would ensure that spill responses would be more efficient or effective under either option. The considerations cited related to the question of whether the needs of the organizations involved (spill responders or industry clients) would be better served, and to the potential questions of cross-subsidization from one industry to another. This subject deserves far more study than it has received to date, based on consultations with the affected parties.

At this juncture, departments may wish to consider how broadly they wish to define the scope of possible organizational change in future, and further to what extent they wish to include the provincial organizations in that review.

3.4 Legislative, Jurisdictional and Administrative Considerations

Given the broad range of existing legislation that governs the organizations responsible for spill response, this review has only sought to summarize the main provisions.

There, however, are two jurisdictional issues that will be significant in exploring future opportunities to enhance the integration of regimes.

The first concerns the offshore petroleum boards. The negotiation of the Canada-Newfoundland and Labrador Atlantic Accord in 1985 and the Canada-Nova Scotia Offshore Petroleum Resources Accord in 1988 were preceded by a period during which there was significant controversy over the ownership of the seabed resources in the east coast offshore areas. In 1984, the Supreme Court of Canada ruled that the federal government owned the resources. The decision by the federal government at that time to accommodate the interests of the eastern provinces by agreeing to joint management of the exploration and development activities in the offshore areas was

regarded as significant not only for the enhanced role that it gave to the provinces but also because of the resource revenues they received. The federal and provincial governments passed "mirror" legislation to authorize the establishment and operation of the offshore boards, including the provisions relating to environmental management. A fundamental change in the powers of the Boards to regulate in this area would, one assumes, require an amendment to both the federal and provincial Accord Acts. Obviously, such a decision would require the agreement of all parties.

The second concerns the recent actions by the province of British Columbia to play a larger role in the formulation of policy and in legislating and regulating concerning the prevention of and response to marine oil spills. It remains to be seen whether and to what extent the provincial government's initiatives will intrude into areas of federal jurisdiction. The avoidance of controversy in this area may, at some stage, lead the federal government to consider organizational changes that would involve more structured cooperation, coordination and alignment with the provincial organizations involved. It seems too early to anticipate what form that organizational alignment might take.

During the meetings with departmental experts, they repeatedly commented that private organizations (i.e. pipelines, offshore operators, oil handling facilities, and others) include in their emergency response plans an expectation that they will be able to call upon the services of either Response Organizations or the Canadian Coast Guard to assist in dealing with a large spill. Similarly, a recurring theme heard during the meetings and teleconferences was the importance of clarity and certainty with respect to the roles of different response organizations. In the case of the Canadian Coast Guard, there appears to be considerable uncertainty among CCG staff as to whether the CCG has the legislative mandate to respond to spills from non-ship sources, immunity from liability in doing so, and policy support in this role.

The Fall 2012 report of the Commissioner of the Environment and Sustainable Development on the performance of the offshore boards found that there was not then any system in place that would allow the boards to verify whether the emergency response plans that the boards require of offshore operators contained realistic assumptions concerning the demands that operators might make on other sources of assistance, given the resources then available. The CNSOPB and the C-NLOPB subsequently met with the Canadian Coast Guard and then developed an approach published in the Drilling and Production Guidelines:

"In respect of Tier 3 spill scenarios, the operator should ensure that the fitness for purpose of its designated response resources is evaluated in an arms-length and documented manner. A process such as that described in the Proposed Oil Spill Response Organization (OSRO) Assessment/Self-Assessment Tools is considered best practice for this purpose. If multiple operators designate the same Tier 3 response resources, they may cooperate in the assessment of these resources. The operator should inform the regulator of the planned scope of this review prior to its conduct."

Now, each new operator is tasked to perform a third party verification of its response resources, which is reviewed by the boards during their assessment of the Oil Spill Response Plan. The oil spill contingency plans are published on the boards' websites.

In the timeframe available for this study, the Project Manager did not review the requirements placed on other organizations that rely on Response Organizations to assist them in responding to large spills to determine whether they similarly employ third party verification of the RO's capabilities, or whether there is any opportunity for users of RO services to collectively to assess such capabilities. This may be a useful topic for further study

If it is indeed true that the CCG lacks either the legislative mandate or the policy approval to respond to onshore sources of oil spills that might find their way into the marine environment, then it would seem appropriate as part of the Oceans Protection Plan review to explore the policy issue of whether this authority should be sought.

3.5 Increase in the Number of Joint Exercises

It is already the practice of the Canadian Coast Guard and the offshore petroleum boards to engage in joint planning exercises to deal with potential spills.

The *Annual Environmental Response Program Evaluator's Report* on the 2017 exercises performed by the Canadian Coast Guard distinguished between five different kinds of results-based exercises, three simulated and two live:

- Simulated tabletop exercises as focused on planning and procedures, such as situation analysis or incident management/public affairs;
- Simulated command post exercises focusing on the Incident Commander and Command or General Staff, or functional leads and team heads at the regional or national levels;
- Simulated drills, or activities that validate a specific operation or function to assess the level of competency in a specific task;
- Live exercises, or activities that validate multiple functions at a specific site to assess how participants apply plans, policies, procedures and training in response to a specific activity; and
- Live full-scale exercises, or activities that validate multiple functions at multiple sites to assess how program staff apply plans, policies, procedures and training in response to a large-scale event.

The Evaluator's Report noted the benefits that could accrue from aligning exercises more closely with the Coast Guard's performance measurement strategy. Beyond that, based on the comments of CCG staff during meetings, there seems to be a consensus that more exercises would be beneficial to familiarize staff with the best practices and the respective roles and responsibilities of each organization. An additional important benefit is the increased effectiveness and confidence that can

come from networking among people with different but related responsibilities during an emergency situation. It is not clear to what extent resource constraints currently limit the opportunity for more joint exercises.

3.6 Other Measures

The Fall 2010 report of the Commissioner of the Environment and Sustainable Development noted the deficiencies in the Canadian Coast Guard's Marine Pollution Incident Reporting System. Based on the few incident reports examined by the Project Manager, those deficiencies continue.

It is difficult, without further enquiry, to determine the causes of this problem. In essence, those completing the incident reports provide the barest of information and focus on matters of a primarily "transactional" nature in terms of which organizations took action when. They do not address such matters as the problems in coordination encountered, how these problems were resolved, what resources were used, and what lessons were learned either from an operational or management perspective. They usually do not explain how communications were managed, either with the public or with decision makers outside the region. They thus provide no useful "case studies" that can help inform decisions about how to improve spill response in future.

The Canadian Coast Guard should review further how to improve the incident reporting system.

Several officials commented on the increasing "expectations" concerning the role that the Coast Guard, and indeed all marine oil spill response organizations, should play. It was rarely specified whether this was a reference to the expectations of the entire Canadian public, people in some regions, the media or senior managers and Ministers. There were no results of opinion polling or media analysis to confirm what exactly public expectations are. Whatever the subjective expectations, an objective review of the performance of the current ship-source and non-ship source marine oil spill response systems, based on the adherence to existing standards and the continuing decline in the number and size of spills, suggests that federal organizations and those private organizations regulated by them already achieve a very high level of performance. Further, this performance level is steadily being improved as a result of government policies.

The National Energy Board's response to the questionnaire distributed during the discovery phase of this study included some insightful comments on the general question of how to approach the development of a more seamless regime. The following are excerpts:

- *Public Safety Canada, as the federal department responsible for national leadership and coordination of EM activities among government institutions, has worked with provinces and territories to develop an Emergency Management Framework for Canada and the National Emergency Response System. They also*

are responsible for the Federal Emergency Response Plan. Their advice should be solicited to ensure this initiative aligns with whole of government practices.

- Who is the “seamless” response targeted for - the public, our response partners or the polluter? There are aspects of our systems that are already seamless. For example, NEB regulation of offshore exploration and production starts at the concept of the activity (where we assess an application), continues through the design phase (if the application is approved), through the operations phase (including accidents and malfunctions) and ends with abandonment activities. Note that we continue to work on response integration with our provincial partners, given the escalating nature of managing a response to an emergency (e.g. starting local).*
- TC’s response planning standards estimate that, for any vessel-source spill, on water operations will be concluded after 10 days. Activities beyond the control / containment / recovery of oil on water need to be considered. This includes source control, impacts on other jurisdictions (particularly when the oil comes ashore) and the resumption of service. Consequence management for spill impacts outside of the regulated facility (i.e. spills that leave the pipeline right-of-way or company property) requires joint planning with other jurisdictions – particularly those jurisdictions outside of the federal family.*
- Consideration of the static or dynamic nature of the source e.g. terminals, offshore E&P facilities and pipelines (where geographic response plans can be developed to account for the local environment in which they are located) versus vessels (which transit through multiple areas and have general response plans). Current regulations applying to ERPs developed for static infrastructure require significant detail and these plans/procedures are subject to a higher level of scrutiny than a vessel ERP.*
- Coast Guard’s skills in on water operations and its ability to provide on-water platforms and situation awareness are valuable assets to the federal family, similar to ECCC’s meteorological forecasting and Transport Canada’s aerial surveillance capabilities. The ability to request CCG’s assistance in response to a spill from NEB-regulated infrastructure that impacts the marine environment without going through a formal RFA process would be welcomed. NEB would welcome a renewed discussion on the Memorandum of Understanding that was initiated in 2013.*

The NEB also offered helpful suggestions in response to the specific question of how best to move towards a more integrated and seamless federal regime.

- All staff with an emergency preparedness or response role should have basic training on how emergencies are managed in Canada. Federal staff operating in regions should have additional training on the emergency management system that is used in the province where they work.*
- Coordinated planning, including linkages to existing emergency preparedness and response plans as well as the National Emergency Response System.*

- *Re-establishment of the Regional Environmental Emergency Teams would enhance preparedness by engaging and educating the various government departments in elements of response to spills of pollutants into the environment (not just oil).*
- *Exercises that include primary and support agencies are an excellent mechanism to increase the understanding of the roles and responsibilities of government during a spill response.*

All of the NEB's suggestions deserve consideration. This especially includes its suggestion, echoed by CCG staff, that the consideration of ways to enhance inter-agency collaboration be extended to include activities beyond the control/containment/recovery of oil on water to include an examination of roles in the longer term management of spill impacts. At a minimum, this might include clarifying the policy governing the conditions when and to whom CCG should transfer the spill response lead.

4.0 Recommendations

This study has not examined the interface between the federal and provincial marine spill response jurisdictions, and specifically the questions raised by the actions of the Province of British Columbia to expand its authority and role.

Based on the information gathered for this report, there is very little evidence for proceeding on the basis of the finding by the Tanker Safety Expert Panel that response programs outside the federal ship-source regime could benefit from additional support, and that the Canadian Coast Guard should be given the authority, when called upon, to deploy efforts to assess, control or mitigate environmental and socio-economic effects of such a spill.

The information gathered, however, suggests that there are important measures that federal authorities can take largely within existing authorities to improve the effectiveness and efficiency of marine oil spill response and to enhance the cooperation among different agencies.

With these considerations in mind, it is recommended that Transport Canada and the Canadian Coast Guard:

- Further pursue the study of ways to improve the integration and seamlessness of the ship-source and non-ship source marine oil spill regimes, notably by considering whether and how to broaden the scope of the study;
- Seek advice from Public Safety Canada as to how the initiative to develop a seamless regime aligns with the proposed Emergency Management for Canada and National Emergency Response System;
- In doing so, decide how to fill the information gaps concerning Oil Handling Facilities;

- In the context of the Oceans Protection Plan, review existing memoranda of understanding among the departments and agencies engaged in marine oil spill response to ensure that they meet current and anticipated requirements, especially with respect to clarification of roles and responsibilities;
- Examine how, within existing resource levels, to increase the use of joint exercises among organizations engaged in marine oil spill response;
- Improve each organization's incident report system to ensure that it better documents the operational and management lessons learned from experience;
- Consider, within the context of improved inter-agency coordination, whether collaboration on response planning and response should be extended beyond the control/containment/recovery of oil on water to include longer management of spill impacts; and
- Examine the possible elements of a communications strategy to inform Canadians about the roles, responsibilities and performance of organizations engaged in marine oil spill response.

REPORT ON GAPS IN CANADA'S MARINE OIL SPILL RESPONSE

SYSTEM BEYOND SHIP-SOURCE OIL

PART B DOCUMENTATION OF PRESENT REGIMES

5. Legislation and Enabling Authorities and Mandates

5.1. Legislation

5.1.2 Shipping-related Legislation

The *Constitution Act, 1867*, grants the federal government exclusive jurisdiction over navigation and shipping, coastal fisheries and aids to navigation such as beacons, buoys and lighthouses.

The *Canada Shipping Act, 2001* (CSA 2001) and associated regulations, is the principal statute that governs safety in marine transportation and protects the marine environment. Its objectives are to:

- Protect the health and wellbeing of individuals, including crews of vessels, who participate in marine transportation and commerce;
- Promote safety in marine transportation and recreational boating;
- Protect the marine environment from damage caused by navigation and shipping activities;
- Develop a regulatory scheme that encourages viable, effective and economical marine transportation and commerce;
- Promote an efficient marine transportation system;
- Develop a regulatory scheme that encourages the viable, effective and economic use of Canadian waters by recreational boaters;
- Ensure that Canada can meet its international obligations under bilateral and multilateral agreements related to navigation and shipping;
- Encourage harmonized marine practices; and
- Establish an effective inspection and enforcement program ([link](#)).

The CSA 2001 has several provisions relating to the regulation of oil discharges. These include:

- Requiring every prescribed vessel or class of prescribed vessels to have an arrangement with a response organization in relation to the quantity of oil that it carries and in respect of the waters where it operates;
- Requiring every operator of an oil handling facility to have an arrangement with a response organization in respect of the quantity of oil that is at any time to be loaded or unloaded from a vessel at the facility;

- Requiring every operator of an oil handling facility to have an oil pollution prevention plan that meets prescribed requirements;
- Requiring every operator of an oil handling facility to have equipment and resources available for immediate use in the event of a discharge of oil during the loading or unloading of a vessel; and
- Requiring all response organizations to meet several requirements (relating among other things, to the development of a response plan, training of workers, and regular reporting) before they can be certified to operate.

The CSA 2001 and its regulations establish national requirements. It provides the authority to investigate and prosecute pollution incidents, including ship-source oil spills. Transport Canada has developed the Compliance and Enforcement Policy to monitor compliance within the marine community with respect to the requirements of the CSA 2001 and its regulations. The Act provides, among other things, the enabling authority (Transport Canada) to make regulations designating violations and fixing penalties. It authorizes enforcement action such as suspension, cancellation or refusal to renew Canadian maritime documents. It confers powers of inspection on authorized persons or organizations. It provides powers of search and seizure, powers to detain and/or direct vessels, as well as to enter into an assurance of compliance and a notice of violation. For most offences, Transport Canada has a choice of administrative penalties or prosecution. It is authorized to gradually escalate the severity of enforcement responses. Under section 189, the Act authorizes the Minister of Transport, if he or she believes that a vessel may discharge a pollutant, to direct the vessel to follow a specific route, to proceed to a specific place, to unload the pollutant, or to remain in place for as long as necessary.

The CSA, 2001 also provides authorities to the Minister of Fisheries and Oceans under sections 174.1 to 177 and Section 180 of Part 8. These provisions relate principally to the subject of responding to discharges or potential discharges of pollutants. The Act provides to the Minister of Fisheries and Oceans Canada certain authorities to address discharges or threats of discharges. Notably, under section 180, the CSA 2001 authorizes the Minister of Fisheries and Oceans, if there are reasonable grounds to believe that a vessel is discharging or is likely to discharge a pollutant, to take the measures considered necessary to repair, remedy, minimize or prevent pollution damage from the vessel, including the removal or destruction of the vessel and its contents. This section of the Act also authorizes the Minister of Fisheries and Oceans to direct any person or vessel (i.e. including nearby vessels) to take measures to repair, remedy, minimize or prevent pollution or to refrain from doing so. Finally, section 180 authorizes the Minister of Fisheries and Oceans to pay compensation to any vessel or person for the services needed under this section, other than a vessel that has or was likely to discharge a pollutant.

The authorities granted to Ministers under the CSA, 2001 overlap with some Acts administered by Environment Canada, including the *Canadian Environmental Protection Act, 1999* (CEPA), the *Migratory Birds Convention Act* and section 36(3) of the *Fisheries Act*.

In addition to the CSA, 2001, there are many other Acts of Parliament that provide authorities relating to emergency preparedness, marine safety and security, and environmental protection that affect the ship-source spill system. Notably, the *Emergency Management Act* administered by Public Safety Canada requires that all federal ministers prepare, maintain and test plans to prevent, prepare for, respond to and recover from emergency incidents. This department also provides guidance on emergency planning and attempts to coordinate a government-wide approach in major emergencies.

The ship-source regulatory regime is built upon international as well as domestic cooperation and alignment, and is supported by more than 100 regulations enabled by almost 30 Acts as well as international agreements and commitments. Canada has been a member of the International Maritime Organization (IMO) since 1948. The IMO is a specialized agency of the United Nations that is responsible for measures to improve the safety and security of international shipping and to prevent pollution from ships. As a member, Canada is signatory to agreements that establish standards and best practices for prevention, preparedness, response, and cooperation. Implementation of the national ship-source response regime is guided by these standards.

The *Marine Liability Act* is the principal legislation dealing with liability and compensation in the event of accidental pollution damage from a ship. Its intent is to establish uniform rules that are consistent with international law and that balance the interests of shipowners and other parties involved in a maritime accident. Generally, shipowners are strictly liable for costs, losses or damages relating to a discharge or a threat of a discharge from their ship. A number of IMO conventions govern shipowner liability and create international compensation funds. For example, the *International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1992* creates a fund to provide compensation above and beyond the shipowner's liability. The total amount of compensation available for a tanker spill is \$1.35 billion for a single incident (inclusive of the shipowner's liability). In addition, in 1973 Canada's Ship-Source Oil Pollution Fund was established as a domestic fund to provide additional coverage for oil spills; generally, it applies only to spills from ships, but it includes coverage for mystery marine spills (i.e. spills from an unidentified source).

The *Oceans Act 1996* sets out the powers and duties of the Minister of Fisheries and Oceans with respect to the provision of Coast Guard services. This provides broad authority for marine pollution response in federal coastal waters and the "*support of departments, boards and agencies of the Government of Canada through the provision of ships, aircraft and other marine services*" ([link](#)).

The determination of liability and compensation for marine oil pollution from ships is well established through a number of International Conventions including the Bunkers Convention, the *Civil Liability Convention of 1992* (for oil pollution damage), the *International Oil Pollution Convention Fund, 1992*, and the *International Oil Pollution Supplementary Fund, 2003*. No similar conventions exist for determining

liability and compensation for marine oil spills from offshore exploration and development facilities or from onshore oil handling facilities or other onshore sites. Under the Civil Liability Convention, the liability of a ship owner includes those for the costs incurred by the Coast Guard or a Response Organization to prevent or minimize oil pollution from a ship and those costs incurred to respond to and clean up a spill, provided that the costs and expenses are reasonable.

5.1.3 Legislation related to Surface Transportation

Under Section 48 of the *National Energy Board Act*, the National Energy Board (NEB) is empowered to regulate the construction, operation and abandonment of interprovincial and international pipelines. This includes the authority to regulate the operation of pipelines in the protection of the environment. Under the NEB *Onshore Pipeline Regulations*, pipeline companies are required to develop, implement and maintain emergency management programs to prevent, manage and mitigate conditions during an emergency. A company's emergency management program must include a Contingency Plan and a number of specified processes to identify hazards, manage risks, train and manage workers, monitor and evaluate progress and continually improve performance. It also must be subject to regular audit (i.e. at least every three years) ([link](#)).

The act also authorizes the NEB to enforce the polluter pays principle by imposing financial requirements on a company that operates a pipeline. If an unintended or uncontrolled release occurs from a pipeline, the persons responsible are liable for the actual losses or damages incurred as a result.

Under the *Railway Safety Act*, railway companies are responsible for the safety of their rail line infrastructure, railway equipment, and operations. This includes ongoing inspections, testing, and maintenance programs in accordance with regulatory requirements established by Transport Canada, as well as any particular operating and environmental conditions. One of the stated objectives of the *Railway Safety Act* is "*to promote and provide for the safety and security of the public and personnel, and the protection of property and the environment, in railway operations.*" Transport Canada monitors railway companies to ensure compliance with rules, regulations and standards through audits and safety inspections. The primary focus of the legislation and regulations is on rail safety, including avoiding incidents that might give rise to spills.

5.1.4 Legislation related to Frontier Exploration and Development

Under the *Canada Oil and Gas Operations Act, 1985*, the National Energy Board is responsible for regulating the discharges of wastes or spills resulting from oil and gas exploration and development activities in certain federal frontier lands and offshore areas. This includes establishing liability for the damages caused by spills, requiring all spills to be reported and "*requiring all persons responsible for an oil spill to take all reasonable measures to consistent with safety and the protection of the environment to*

prevent any further spill, to repair or remedy any condition resulting from the spill and to reduce or mitigate any danger to life, health, property or the environment that results or may reasonably be expected to result from the spill.” The Chief Conservation Officer of the NEB can step in to take any actions that he or she deems necessary, including taking over the management and control of the operations and any related works ([link](#)).

Under the Canada-Nova Scotia Offshore Petroleum Board legislation and the Canada Newfoundland and Labrador Offshore Petroleum Board legislation, oil spills are prohibited from any portion of the offshore area, but, where these occur, the person (i.e. organization) carrying out the offshore exploration or development activity must report the spill to the Chief Conservation Officer of the appropriate offshore board and, as soon as possible, take all reasonable measures to prevent any further spill, repair any condition resulting from the spill and reduce or mitigate and damage that might result from the spill. The Chief Conservation Officer “*may authorize and direct such persons as may be necessary to enter the place where the spill has occurred and take over the management and control of any work or activity being carried on in the area of the spill.*”

5.2 Provincial Government Legislation and Regimes

As previously indicated, under the Canadian Constitution the federal government has the exclusive power to regulate navigation and shipping. This principle has been generally recognized by the provincial and territorial governments, which while passing legislation of general application in environmental matters, usually have not sought to legislate or regulate the transport of crude oil or refined petroleum products or to prescribe special requirements relating to marine oil pollution preparedness and response. Thus, even in Atlantic Canada, where about 75% of Canada's oil tanker traffic occurs, the provinces do not regulate ship-source spill prevention and response, but rather rely upon the provisions of federal regulation.

The provinces of Newfoundland and Labrador and Nova Scotia have agreed to establish joint administration of offshore oil and gas exploration activities, including the regulation of spill preparedness and response, under the Accords that were negotiated in the 1980's. The Accords were implemented through identical legislation that was passed by the federal Parliament and the legislature of the corresponding province.

British Columbia is a special case. In the 1980's, British Columbia declined to enter into an Accord with the federal government to regulate exploration and development of the west coast offshore areas, and refused later proposals to do so, due to public opposition there to offshore exploration and development.

In 1991, the B.C. Ministry of the environment published the B.C. Marine Oil Spill Prevention and Preparedness Strategy, with the declared intent of “*protecting British Columbia's coastal environmental resources from harmful oil spills emanating from marine vessels, industrial facilities or inland sources.*” This document and its

subsequent revisions were based upon the statement that the province's jurisdiction *"includes all land between the high and low water mark, the seabed of the Strait of Georgia, Juan de Fuca and Queen Charlotte Sound-Johnstone Strait, and the coastal seabed between major headlands unless responsibility has been transferred specifically to a federal jurisdiction or is in private ownership."* The Strategy stated that the *"Province will take an active leadership and participatory role in the coastal resources identification and, in the event of an oil spill, the protection and cleanup of the intertidal shoreline and seabed, which are under the jurisdiction of the Province."* The B.C. Ministry of Environment was designated as the lead provincial agency in the development and implementation of a B.C Marine Oil Spill Response Plan.

The essence of the B.C. Marine Oil Spill Response Plan was that the industries and companies that transported, used and stored oil products would be held responsible for spill preparedness and response, with the Ministry of the Environment setting standards for oil spill contingency plans and undertaking periodic reviews to ensure compliance. The Ministry also developed a capability to take on-scene command of any oil spill that exceeded the capability of the polluter *"or when it is in the provincial interest to take action."* Much of the Response Plan dealt with the province's endorsement of the Incident Command System as a preferred way of organizing oil spill response among multiple interested agencies.

In 2017 and 2018, following the issuance of a certificate of public convenience and necessity for the Trans Mountain Expansion Project, the British Columbia government signaled its intentions to play a larger role in the regulation of potential oil spills off the province's coast. In October 2017, it approved three new regulations on oil spill preparedness, response and recovery. It established more stringent standards for spill preparedness for liquid petroleum products across transportation sectors while also requiring stringent response and environmental recovery actions from all polluters. In February 2018, it published a policy intentions paper setting out what it described as further "enhancements" to the provincial spill management regime yet to be finalized. The policy intentions were to:

- Prescribe response times following a spill;
- Develop Geographic Response Plans to ensure resources are available to support spill responses in particularly sensitive areas;
- Introduce compensation requirements for the loss of economic, cultural and recreational public use arising from spills; and
- Maximize the Ministry's environmental emergency regulatory powers.

The paper listed a number of additional "policy concepts" to be explored in future regulatory development phases including imposing qualification standards for responders and imposing sampling and monitoring requirements for spillers to assess environmental impacts immediately following a spill. While the details of the regulations remain to be seen, they seem in some cases either to duplicate or compete with federal regulation.

In Transport Canada's public response to the policy intentions paper, the department stated *"Canada has world-leading regimes for prevention, preparedness and response, and liability and compensation for the transportation of petroleum and other products, as well as clear jurisdiction for interprovincial pipelines, and rail and marine transportation. The current railway, marine, and pipeline regimes are robust and continue to be advanced and improved and include comprehensive liability and compensation systems to minimize impacts on Canadians, ensure they are protected from costs and damages, and that the environment is protected..."*

In the marine sector, the Government of Canada has full jurisdiction and has developed a strong marine safety system that exceeds international conventions and standards in important aspects. We welcome British Columbia's efforts where the land and water regimes interface and where the province has identified gaps in the provincial regime.

It is essential that British Columbia's proposal not impair Canada's jurisdiction in these areas or conflict in any way with the federal regime. The Government of Canada will continue to exercise its jurisdiction for interprovincial railways, the transportation of dangerous goods, interprovincial pipelines, and the marine sector in a way that considers the benefits to Canadians across the country. The Government of Canada is unequivocal that, while British Columbia can legislate to ensure its provincial interests are addressed, any provincial regulation or legislation enacted by British Columbia needs to respect federal jurisdiction." ([link](#))

6. Current Federal Government Oil Spill Response Regimes/Systems

6.1 Response Operations – General

6.1.1 Ship-Source Spills

The approach taken in Canada to ship-source spill preparedness and response is cooperative and based on shared responsibilities between the private and public sectors. Transport Canada is the federal government lead in regulating shipping and has legislative oversight over many related programs, but many government departments are involved in the implementation of programs under their own mandates. Other partners include, notably, Fisheries and Oceans Canada, the Canadian Coast Guard and Environment and Climate Change Canada. These departments also work with provincial governments, industry associations, indigenous groups, labour unions, and special interest groups to achieve their mandates.

The policy of the Government of Canada is to place first responsibility for preventing, responding to and cleaning up marine spills on the polluter. The Canadian Coast Guard is authorized to respond to incidents involving all sizes of vessels. Larger vessels, including all tankers of 150 tonnes gross tonnage or more and all ships of 400 tonnes gross tonnage or more that carry oil as fuel or cargo, must by regulation have shipboard oil pollution plans. These plans help shipboard personnel deal with an unexpected discharge of oil. They prescribe necessary actions to stop or minimize

the discharge and to reduce its effects. Effective planning is intended to help responders take the necessary actions in a structured, logical and timely manner.

Response Organizations

Response Organizations (ROs) are private companies certified by Transport Canada as qualified to provide marine oil spill response services in respect of a specific geographic area. Marine oil spill response services include the provision of equipment, personnel and operational management for the containment, recovery and cleanup of oil spilled on or into water by ships or onshore oil handling facilities. The ROs charge fees to the oil handling facilities and vessels to maintain a level of preparedness and response capacity to address spills up to 10,000 tonnes.

When a RO is contacted by an Incident Commander (IC) (the Responsible Party or the Canadian Coast Guard) to respond to an oil spill, it must deploy equipment and personnel for response operations in accordance with the directions of the IC. Thereafter, it must ensure close adherence to the prescribed response times, while coordinating all response activities and plans through the IC. The RO takes operational financial responsibility and submits all costs associated with the response to the IC ([link](#)).

A central feature of the Canadian oil spill preparedness and response regime is that the Canadian Coast Guard will monitor the response of the Responsible Party and the RO. The Canadian Coast Guard stands ready to assume the role of Incident Commander if the Responsible Party is unknown, unwilling or unable to respond.

There are currently four certified Response Organizations that provide coverage south of 60 degrees north latitude:

- Atlantic Emergency Response Team (St. John, New Brunswick);
- Eastern Canada Response Corporation (Ottawa, Ontario);
- Western Canada Marine Response Corporation (Burnaby, British Columbia);
- and
- Point Tupper Marine Services (Point Tupper, Nova Scotia)

Transport Canada

Transport Canada is the lead regulatory agency that manages Canada's Marine Oil Spill Preparedness and Response Regime. The department:

- Provides regime management and oversight;
- Develops regulations and standards relative to Part 8 of the CSA 2001;
- Applies and enforces regulations relating to Response Organizations;
- Applies and enforces regulations relating to prescribed oil handling facilities that transfer oil to or from a vessel;

- Oversees an appropriate level of national preparedness in terms of industry capacity;
- Monitors marine activity levels and makes adjustments to the regime as required;
- Appoints and facilitates the work of the Regional Advisory Councils;
- Consults with stakeholders; and
- Ensures continuous enhancement of the regime.

Although these activities are not formally part of the Preparedness and Response Regime, Transport Canada also serves as the lead agency for salvage of vessels if necessary during a pollution incident.

Every three years, Transport Canada certifies the Response Organizations that maintain preparedness to respond to oil spills in Canadian waters on behalf of prescribed oil handling facilities and vessels of a prescribed class in their area. During the certification period the response organizations must meet the requirements of the CSA 2001, *Response Organizations and Oil Handling Facilities Regulations*, the *Environmental Response Arrangements Regulations* and Transport Canada's *Response Organization Standards* (TP 12401). At the end of each three-year period, the response organizations must submit a new response plan to the Minister of Transport to apply for certification as a designated response organization.

Transport Canada also prescribes the level of preparedness that the response organizations must maintain.

The Canadian Coast Guard

The Canadian Coast Guard within Fisheries and Oceans Canada is the lead agency of the Government of Canada responsible for ensuring an appropriate response to ship-source and mystery-source pollution incidents (where there is reason to believe that pollution came from a ship) in Canadian waters. The Marine Spills Contingency Plan – National Chapter provides the details regarding the scope within which the Canadian Coast Guard will operate. It outlines the operational precepts under which the Canadian Coast Guard monitors or provides a coordinated and integrated response to a marine pollution incident at the national, regional and local levels ([link](#)).

The Plan outlines the framework the Canadian Coast Guard will implement during the response to a marine pollution incident as lead agency while managing a response or monitoring a polluter led response. It also establishes procedures for when the Canadian Coast Guard acts as a resource agency for pollution incidents.

The following table summarizes the circumstances in which the Canadian Coast Guard will be the lead agency:

Pollutant Source	CCG Role	Comment
Vessel in, on through or immediately outside Canadian waters	Incident Commander	Respond under a Single or Unified Command structure with the Incident Commanders of other agencies and the polluter when the polluter is known, willing and able.
Mystery source in Canadian waters	Incident Commander	Respond under a Single or Unified Command structure with the Incident Commanders of other agencies
Oil Handling Facility	Incident Commander	Only when a vessel is attached and transfer of oil is underway. Respond under a Single or Unified Command structure with the Incident Commanders of other agencies and the polluter when the polluter is known, willing and able.
Any source originating in foreign waters that enters Canadian waters	Incident Commander Assisting Agency	Respond under a Single or Unified Command structure with the Incident Commanders of other agencies. For operations outside Canadian waters. Upon request, for operations within foreign waters.
Any source, other than a vessel or mystery source, originating in Canadian waters that enters foreign waters	Assisting Agency	Upon request, for operations within Canadian and/or foreign waters.

There are three Canadian Coast Guard Regions to facilitate the administration of program delivery. They are:

- Western: includes all Canadian waters on the west coast of Canada out to the Exclusive Economic Zone and the internal waters of British Columbia, the Yukon Territory, the Northwest Territories, Alberta, Saskatchewan and Manitoba;
- Central and Arctic: includes all Canadian arctic waters from the Alaska-Yukon boundary east to the Nunavut-Greenland boundary out to the Exclusive Economic Zone, Hudson and James Bays, the Great Lakes, the St. Lawrence River, and the internal waters of Ontario and Quebec.
- Atlantic: includes all Canadian waters from the maritime border between Quebec and Newfoundland and Labrador east and south to the Exclusive Economic Zone and the internal waters of Newfoundland and Labrador, New Brunswick, Prince Edward Island and Nova Scotia to the United States Border.

The Regional Chapters of the Marine Spills Contingency Plan detail the procedures, resources and strategies used to prepare for and conduct a response to a marine pollution incident within a Region's geographic area. Each Regional Assistant Commissioner is responsible for the development and maintenance of the Regional Chapter within their area of responsibility.

Regional Chapters incorporate the same elements as the National Chapter but interpret each element within the context of its application in the region, including any regional deviations from the National Chapter. CCG Environmental Response Headquarters provides guidance on the content for Regional Chapters and Area Plans to ensure consistency amongst all Regions as well as to ensure that the Regional Chapters comply with the policies, principles and guidelines provided in the National Chapter.

The Canadian Coast Guard is committed to providing the best possible services within its available resources. It has established service standards with respect to two aspects of environmental response. In providing a preparedness capacity for response to ship-source marine pollution incidents, the CCG's standards include maintaining a National Response Plan updated every five years, maintaining Regional Chapters of this plan, and ensuring that a 24/7 Environmental Response Duty Officer I available in every Region. With respect to responding to reported cases of marine pollution, the service standards include initiating an assessment of all reported cases of marine pollution upon notification of the CCG Environmental Response Duty Officer and, if required, mobilizing CCG resources within six hours of completion of the assessment.

CCG Response Operations

The response to the spill is based on several factors. The CCG will assume the role of Incident Commander if the polluter is deemed to be unwilling to respond, unable to respond, or is unknown. In other situations, as Assisting Agency, the CCG will monitor the cleanup efforts of the polluter.

Commonly, once the polluter has been identified, the CCG will advise the polluter of its responsibilities. If satisfied with the polluter's intentions, the CCG will assume the role of Assisting Agency. Until such time that the polluter has assumed responsibility, the CCG maintains the lead for managing the spill response. The CCG is at all times responsible for ensuring an appropriate response regardless of the actions of others.

The National Response Team (NRT) is comprised of the human and equipment resources related to the Environmental Response program. The NRT is activated through the National Coordination Centre (NCC) in CCG Headquarters. The NRT will normally be activated once capabilities of local resources become overwhelmed or the complexity of an incident requires additional resources.

The CCG has a wide selection of personnel and equipment across Canada that can be called upon to assist as required during a spill response. The Coast Guard Emergency

Response group across Canada has declined from 155 personnel in the mid 1990's to 77 prior to the launch of the Oceans Protection Plan. Currently, additional Emergency Response personnel are being hired through Oceans Protection Plan investments in enhancing the marine safety system.

The CCG's preparedness costs are not paid by industry but rather as part of the Government of Canada's normal budgetary process. CCG can, however, recover costs incurred during an oil spill response operation from the owner of the ship responsible for the spill, or from one of the other international or national compensation funds available.

CCG as Assisting Agency to Other Federal Departments

In the event of an incident that does not fall under the mandate of the Canadian Coast Guard, if requested, the Regional Environmental Response program may provide resources based upon the judgment of the Regional Director, Programs, (or, where necessary, more senior officials) concerning:

- The potential risk to Canadian Coast Guard personnel and equipment
- The propriety and justification of the request
- The capability to respond
- The impact the request will have on normal operations

Assistance to the lead agency will be on a cost recovery basis unless otherwise directed. Costs incurred while acting as a resource agency must be recovered from the lead agency pursuant to either a memorandum of understanding or contractual arrangement depending on which is established at the time of the request for assistance.

Maritime Event Response Protocol

While not a plan, the Maritime Event Response Protocol is a strategic protocol intended to provide strategic guidance for the planning and execution of an integrated and coordinated Government of Canada response to a significant emerging or occurring marine event affecting Canadian national interests. It provides for a common situational awareness for all federal government departments and provides a venue for all departmental Headquarters to share information and support the response.

In principle, it also promotes a comprehensive approach to incident management among interested agencies. It is targeted at addressing significant emerging or occurring maritime events that may be beyond the scope, or exceed the capacity of, a single federal department or agency.

The Maritime Event Response Protocol does not supersede the Marine Spills Contingency plan – National Chapter. Rather, it represents a federal escalation of an

emergency response beyond the scope of the activities detailed in the CCG Marine Spills Contingency Plan – National Chapter. For example, the Maritime Event Response Protocol fosters enhanced federal communication, coordination and unity of effort during potentially complex and politically sensitive situations and events. There is now a specific annex to deal with maritime pollution threats or events.

Shipowners and Masters

In the event of a spill, the shipmasters and owners, as Responsible Parties, must report the incident as required under the regulations of the CSA, 2001.

Ships that transit Canadian waters are required to have a Shipboard Oil Pollution Emergency Plan as well as an arrangement with a certified Response Organization that would respond to a spill on the polluter's behalf.

The Responsible Party's role and responsibilities are broad. They include salvage, protection, security, safety, return to service and all other concerns about the source of the spill. The Responsible Party also has responsibility for addressing how the event will affect the financial costs to health of the company, the impact on Shareholder confidence, public and governmental relations, legal concerns and business resumption.

The Ship Master or Owner must appoint an Incident Commander for the operational management of the spill for which they are responsible and mitigate, contain and control an oil discharge/spill through their own means and/or in combination with a contractor and the Response Organization. In doing so, they must keep the Canadian Coast Guard apprised of all response activities and plans and take financial responsibility for all reasonable costs associated with the response, recovery and monitoring of pollution incidents.

6.1.2 Non-Ship-Source Spills

6.1.2.1 National Energy Board

The National Energy Board (NEB) is an independent federal agency that regulates cross-border pipelines in Canada. The NEB ensures that pipeline companies meet strict requirements to keep Canadians and the environment safe. Close to 100 pipeline companies are federally regulated and operate approximately 73,000 kilometres of pipelines in Canada.

Emergency management, including response to pipeline spills, is achieved through clear and comprehensive regulatory requirements and regulatory oversight. For federally regulated pipelines, these requirements are set out in the *National Energy Board Act* and the *National Energy Board Onshore Pipeline Regulations*. The legislation requires companies regulated by the NEB to have a comprehensive Emergency Management Program in place that is subject to the NEB's compliance verification activities.

The *National Energy Board Onshore Pipeline Regulations* state that an Emergency Management Program must anticipate, prevent, manage and mitigate conditions during an emergency that could adversely affect property, the environment or the safety of workers or the public. This includes the need for emergency procedure manuals that are regularly reviewed, updated and made publically available. A company must also have a site-specific plan for sensitive areas such as wetlands or national parks.

Companies regulated by the NEB must establish and maintain a close working relationship with agencies that may be involved in an emergency response related to a pipeline to ensure effective coordination. This could include first responders, city planners, municipalities, and Indigenous communities.

The NEB also verifies compliance with regulatory requirements. This can include, for example, a review of a company's comprehensive emergency procedures manual, evaluations of company emergency response exercises, and audits of management systems. During compliance verification, NEB Inspection Officers and other staff work with the company, local municipalities, first responders, Indigenous groups, and other stakeholders; each of whom may be involved during an emergency response.

The NEB has been training emergency response staff in the Incident Command System since 2008. In 2014, the Chair of the Board, through the NEB Policy for Emergency Response on Regulated Facilities and Activities, further entrenched this by committing NEB responders to participating in ICS and integrating into the Incident Management Team and by participating in Unified Command.

The NEB's Emergency Operations Centre (EOC) in Calgary supports the NEB incident management team (field response) and work at a strategic level by communicating with Natural Resources Canada and other federal government organizations' emergency operations centres depending on incident requirements.

The NEB has Memoranda of Understanding with various departments, including Environment and Climate Change Canada, to improve cooperation and coordination of activities, including emergency management. It also interacts with other federal departments and authorities through a variety of fora that have both preparedness and response functions. Examples include Regional Federal Coordination Working Groups, the maritime Event Response Protocol and the ECCC Science Table.

The National Energy Board posts information on its website on its compliance and enforcement.

6.1.2.2 Federal Lands Oil and Gas Regime

As indicated in the previous review of legislation, Canada's frontier lands are divided into four administrative areas: northern Canada onshore and offshore areas; southern Canada federal lands not yet regulated under federal-provincial accords (e.g. offshore Quebec, Prince Edward Island and British Columbia); the Canada-Newfoundland and Labrador offshore area; and the Canada-Nova Scotia offshore

area. The accord areas are ones for which the federal and provincial governments agreed during the 1980's to set aside questions of jurisdiction and resource ownership and instead to implement, through identical legislation passed by the Federal and relevant provincial legislatures, a system of shared jurisdiction and management. It is not clear whether the accord system will be expanded in future.

In northern Canada, the National Energy Board has regulatory responsibility for oil and gas exploration and development activities operating under authorities granted pursuant to the *Canada Oil and Gas Operations Act* (COGOA) and certain provisions of the *Canada Petroleum Resources Act* (CPRA). In doing so, the NEB is accountable to the Minister of Indigenous and Northern Affairs.

In the southern Canada federal lands not yet subject to accords, the National Energy Board regulates oil and gas exploration and development activities under COGOA and CPRA. In doing so, the NEB is accountable to the Minister of Natural Resources.

In the area offshore Newfoundland and Labrador, the Canada-Newfoundland and Labrador Offshore Petroleum Board regulates oil and gas exploration and development activity under the Accord Implementation Acts. The board is accountable to the federal Minister of Natural Resources and the Newfoundland and Labrador Minister of Employment, Workforce Development and Labour and the Newfoundland and Labrador Minister of Natural Resources.

In the area offshore Nova Scotia, the Canada-Nova Scotia Offshore Petroleum Board regulates oil and gas exploration and development activities under the Accord Implementation Acts. It is accountable to the federal Minister of Natural Resources and the Nova Scotia Minister of Energy.

Where an uncontrolled, unplanned or accidental release of a substance into the environment occurs from an offshore installation (e.g. platform well, or storage facility), primary responsibility for offshore spill response rests with the operator (i.e. the company carrying out the exploration or development activity). Operators are required by law to prevent oil spills, but if one occurs, they are required to contain and clean up the spill in accordance with their Board or NEB-approved contingency plans. Operators are liable for all costs and damages (absolute liability up to the limits prescribed by statute without proof of fault or negligence; or unlimited liability when fault or negligence is proven).

The Offshore Boards and the NEB are responsible for overseeing and monitoring the operator's response and implementation of its contingency plans. The boards have the authority to order the operator to take additional measures to prevent, repair or remedy the effects of a spill, and the authority to take over management and control of any work activity being carried out in the area of the spill.

When a spill occurs, operators have two immediate responsibilities: to report the event to the responsible authorities, including the relevant offshore board (under the Accord Acts), the Canadian Coast Guard (under the *Fisheries Act*) and to Environment

and Climate Change Canada (under the *Canadian Environmental Protection Act*) and to respond as soon as possible with reasonable measures aimed at preventing further spillage and minimizing the environmental impact. The operator would lead the response, guided by its own spill response plan. As set out in the Accord Acts, the responsible board must monitor the operator's activities and can give direction to the operator. The Acts also provide that if the operator does not or cannot fulfill its responsibilities, the board may take over the spill response. Although neither board has had to play this role in the past, if one did take over managing a spill response, it would coordinate its actions with federal departments and agencies.

In summary, the current systems to respond to ship-source and non-ship-source marine oil spills regimes rest upon cooperative actions by several different organizations in accordance with their legal responsibilities and their capabilities to help. Responsibility is shared between the companies on the one hand and government organizations on the other. In the first instance, the operator of any ship, oil handling facility, offshore oil rig or pipeline that causes a spill is responsible to take immediate action to begin containing it and cleaning it up, as well as notifying the appropriate government authority that the spill has occurred. Ship owners and operators and oil handling facilities must, by law, have an arrangement (i.e. a contract) with a private Response Organization that has the equipment and staff qualified to contain and clean up a spill. Oil and gas operators and pipelines as well as Response Organizations must, by law, have in place emergency plans that meet the prescribed requirements of the regulatory bodies. In the event of an incident, the performance of the companies responsible is closely monitored by the regulatory authority, and in most cases the regulatory authority stands ready to intervene and actually take over the spill response management and operations if it judges that the response to that point in time is inadequate. By reason of its size, resources and expertise, the Canadian Coast Guard is often the first responder to a marine oil spill, but whether it plays the lead response role throughout the resolution of the incident depends on the conditions of each incident.

6.1.2.3 Oil Handling Facilities (OHF)

Section 168 (1) of the CSA 2001 requires that certain oil handling facilities have an arrangement with a certified response organization in respect of any quantity of oil that is at any time involved in being loaded or unloaded to or from a vessel at the OHF. In addition, OHFs must have an oil pollution emergency plan in place to respond immediately to an incident. Also required is an on-site declaration that describes the manner in which the operator will comply with the regulations, confirms that an arrangement with an RO is in place and identifies every individual authorized to invoke both the arrangement and the oil pollution emergency plan. Transport Canada employees inspect these facilities to ensure that the required arrangements and emergency plans are in place. Since the creation of the Regime in 1995, no OHF has been charged with failing to comply with the regulations. The OHFs are also required to take reasonable measures to implement their oil pollution emergency plans in the event of an oil spill and to have a pollution prevention plan on site ([link](#)).

ANNEX A

Questionnaire

Describe your organization's current means of and procedures for coordinating and cooperating with other federal government authorities in the event of an oil spill into the marine environment.

What gaps, if any, currently exist between the regime in which you work and other federal government regimes governing the response to oil spills into the marine environment?

Do the gaps relate primarily to authority or operations?

Describe any problems of overlap and/or duplication among the regime in which you work and other federal government regimes for responding to oil spills in the marine environment.

What have been the consequences of these gaps and duplications, if any, for the quality of the environment?

What have been the consequences of these gaps and duplications, if any, for the effectiveness or efficiency of operations?

Can you provide any documentation, in terms of incident reports, program evaluations, or other reports that describe the gaps and overlaps and their effects?

What do you view as the most effective and efficient way to move towards a more integrated and seamless federal regime?

Which legal or jurisdictional barriers, if any, do you see to moving towards a more integrated and seamless federal regime?

To your knowledge, how will the Seamless Regime initiative interact with other OPP initiatives currently underway (e.g. Regional Response Planning, Hazardous and Noxious Substances)?

Are you aware of international best practices for a seamless and integrated oil spill response system? What are the main strengths and advantages that these systems offer?